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ABSTRACT

The author discusses the use of instructional materials by teachers of learning disabled children and points out the importance of the teacher's knowledge of which materials to use, why, when, where, how to introduce materials, and when to stop their use. (IM)

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# CAVEAT EMPTOR

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Traditionally we have spent a great deal of time and effort with our children to teach them those skills they will need when they assume their place in society, and to pass on the lore, the values, the heritage that makes each culture unique and helps us to identify with a group -- to feel that we belong. And this is true whether such learnings are taught within the home, as a parent trains child to cook, sew, farm, paint, or whether the child is apprenticed to a craftsman, or, perhaps, in the case of the girl, indentured to a family to learn the art of homemaking.

Schools came into being for various reasons. As our lives became more complex and our skills more differentiated, we delegated to the schools those tasks we could not provide for in the home or in industry -- the skills, the knowledge, the essence of our culture. But whether we teach the child in the home, in the fields, in a private residential school and no matter what our philosophy of education, there are really only four basics needed by the learner: things to manipulate, models to emulate and copy, peers to compete and share with, and elders to understand, and guide and help. It is to the first of these that I direct my observations today -- things to manipulate. Today they are called instructional materials. Media. Tangible aids. Toys. Manipulative materials. Learning resources. And they can include anything and everything which the child uses for learning or learns from . . .from the book, the most viable and flexible of all learning sources . . . to the great outdoors. Or computers, electronic machines. Amplifiers or hearing aids. Or brailled books.

My concern is not the materials themselves. But rather the danger that we are letting these materials become our crutches and letting ourselves become encapsulated and enslaved by and to them . . . to the point of feeling guilty if we don't have or at least know about the latest kit or program or test or theory.

Instructional materials and methods have their fashionable periods, just as do clothing. And we all like to be "in" . . . to look the part. If we are to be LD teachers, we need to wear our LD "hats". Our rooms must have the tape on the floor, the marsden ball hanging from the ceiling, the balance beam, the study carrel, the DLM boxes, puzzles, Frostig worksheets . . . so that the administration has visual assurances that we are indeed special. And this has gone on since Froebel, Pestalozzi, and Montessori have sent us ever onward and forward in use of things, material or didactic teaching. But fashions need to be appropriate and comfortable. And we need to avoid letting ourselves be swayed so much by what is "in" and concentrate on what is right, for us and for our students. We have no prostheses, no panacea, no apothecary for LD. What is special about special education really is the child and his problem or situation that is interfering with his learning. A learning disability is important only in the way in which it affects the child in the totality of his learning . . . the emotional overlay, the ability to gestalt, the ability to integrate his learning experiences, his learning pattern and his adjustment. And materials are important only in the way in which they help us do this.

There were two major thrusts in education of the special child in the 1960's. One was the network of Instructional Materials Centers which provided an impetus or catalyst for materials development, awareness of the wide array and use of materials and media, a new technology of education media. The other major contribution of this decade was the effort to develop diagnostic assessment devices with the purpose of prescribing appropriate educational experiences for the child. Both movements had a common educational objective -- to provide the child having a specific learning problem with an appropriate and successful learning experience.

But these two movements have gone their separate ways. The commercial companies have borne the burden or responsibility of developing new materials. And not always aligned to learning processes and needs. There has been little or no field testing. Materials have become delimiting, too specific . . . to make them salable and profitable. Materials not marketable are not produced, or not for very long anyway . . . and thus many important needs of the "inexplicables" or the hardcore hard-to-teach are not being considered. Whose fault is it?

The companies were meeting needs and filling voids. Many sought consultants and experts. They did develop a market for manipulative materials. They did sell these. Government monies, through the many title programs, grants for media, materials . . . all gave impetus to the glut on the market today of educational materials. And the word is let the buyer beware . . . or be aware.

The schools, for their part . . . sought visible signs of "doing something" -- and the accouterments now available in such glowing colors have made programs appear to be doing the job. School administrators have historically based their evaluations upon the new, the in, the innovative, visible "things".

Laws were passed, mandating programs, which required materials. There was too often a glandular reaction to the tales of woe of the problem learners. Many even at the level of state and national policy makers felt the bad programs would be better than none. And categorical aid necessitated starting programs or classes . . . not always with good planning or good reason . . . or good teachers for that matter. And we now feel a backlash called mainstreaming, as the pendulum makes its inextricable swing. With mandated special education, teacher training institutions were caught unprepared -- instructors and professors were caught with required new sequences of courses for certification. And they looked to textbooks, too often written on the basis of few examples, narrow research or no research, little real practicality for the front line troops. Few college level instructors actually had had real teaching experience peculiar to these new fields which developed like amoeba, or split, like atoms. There was a curious cycle . . . one could not be certificated without courses and experience, but no one was trained and experienced to provide the training and experience. A sort of hybrid breed had to evolve . . . or a mutation from those other fields of specialization. We began to fractionate our own training. Sometimes too mary courses were required and presented though the were really alike in content, such as characteristics, methods of remediation, materials, diagnosis and evaluation.

These were often repetitive or they missed their mark. It never could be really established as to why the courses had to be differentiated for learning problems of the socially mal, the disturbed, the learning disabled, the disadvantaged, when we had not yet determined that the specific labeling led really to differences in programming or teaching.

The training and certification were categorical to the handicap, not to the learning problem or process. Yet we cannot predict the effect of a disability or impairment or handicap. And we do not teach to the handicap, we teach the child who has a handicap which disallows his learning without some educational intervention. Teachers have thus been expected to transfer training and to conceptualize, to keep up with research, legislation, new fields, new developments. We have had to be continually recycled and retread.

But teachers have found it difficult to keep up with the changes if they are in the classroom without time or opportunity. There is often inadequate supervision in the schools for the special teachers, particularly the new ones. And the LD teachers are being expected to "cure" their students. Special or LD teachers are often criticized as classroom teachers make such remarks as, "I wish I had time to sit around with just one or two kids at a time," or "He hasn't gotten any better since you tested him," or "I tried using multiple choice spelling tests as you suggested, but he still fails the weekly test which he takes with the others," or "Of course, I give him preferential seating, and I switch the kids weekly so they all get a chance to have preferential seating." And classroom teachers saw the special teacher using the same books, paper, materials as they used -- for some reason they could not realize, the difference was in the use, not the using of the materials. And the busy, harassed LD teacher leaned more heavily on materials. They saved time, they did help, at least some, and they didn't hurt anyone. And they were "in." But they accomplished no miracles. Parents heard about the new programs being offered to other learning problem children. They learned of new aids, new materials, and new techniques through Sunday supplements, magazines and Dr. Welby, and they wanted this for their children. Publicity implied an amnesty for all who had school problems. These children were now learning disabled, whatever that was to mean, and the meaning is still hazy. But now there were no guilty parties, no "retardos". And kids were caught up in the swirl, labeled, tested, and "worked on". And materials were motivating. Attention was pleasant and sorely needed. And the kids could succeed with those materials which had been devised and developed for success. Also, they got out of those classes where they had been failing. It seemed that finally someone cared. No longer were they frightened of being dupbies or crazies. Some even proudly said, "I have a perceptual problem", or "I am brain injured". So what is the problem?

Are we using materials as cop-outs and band-aids without adequate training for the teacher or the child, without due consideration of prescriptive use, without full awareness of learning processes and intervention, without accountability? We can always blame the commercial company for their lousy instructional programs.

The secret lies in work, not physical materials and media. Actually we have less time and more to teach with these children. The program is expensive and the public is demanding its money's worth -- in courts and at the polls (bond issues and school board elections). Litigation is now making it mandatory that special education meet the needs of these children. This is not true of regular education -- the rule that one teaches a child to his fullest capacity as determined by tests. But we are left with no time for experimentation, no goofing around, no learning from or on the kids. We need to look for problems and answers. Gertrude Stein is supposed to have said, "Well, if you don't know the answer, what is the question?" What are the questions without answers?

Did we encourage the commercial development of instructional materials in a cooperative venture, through IMC's or through purchasing, or did we let the Philistines do the thinking? Did the classroom teacher fully understand the application of materials to the classroom instructional setting and the specified curricular task? Did the classroom teacher have sufficient knowledge of her pupil's learning characteristics to realize optimum benefits of the materials? Was the teacher's own educational background and general ability such that she was well versed in basic methods of instruction and classroom management? Or did she just teach third grade? When using materials, working with students, helping kids learn, you really gotta know the territory.

What were the commercial producer's omissions? Did the materials have a sound base of empirical data for development? Was the producer aware of trends in teaching handicapped children? Had he checked into any research as to teaching techniques and problems? Were the materials attractively prepared but meaningless in the classroom? Were the materials just recycled, such as is common in early childhood, career awareness, affective education, bilingual?

No real answers are being found in hand-outs, packets, ten easy ways, cookbooks, or chemotherapy. These are aspirin or band-aids.

We don't shop for food, clothes, furniture so carelessly . . . why do we choose instructional materials with so little planning, windowshopping, or thought? We need to study catalogs carefully; some have a wealth of information, excellent consultants, articulate writers, careful research. We need to look over all the components -- guides, hardware, software, media, philosophy, recommended usage, teacher lessons, activities, other materials required or necessary, time for usage. We need to use all of a program before making a judgment.

Don't serve smorgasbord until we are certain the child has no allergies.

Caveat emptor means let the buyer beware. It is incumbent upon the buyer to know what is needed. Educators should be guiding commercial producers, rather than the present situation of being influenced by what is in, fashionable, colorful, fun, or cute.

One overlooked aspect in the use of materials is planning. The relaxed and casual teacher plans carefully, perhaps mentally, but she plans. The open classroom, individual teaching, mediated teaching -- all are time-consuming. In fact, it takes longer to use media, to make it, and make it available. We don't use it for quick and easy results; we use it for better results. It may take longer, but may be more efficient in the long run, in that the learning is more lasting. But use of materials takes planning -- as to sequence, to presentation, when to start and when to stop.

There is not a prosthesis for LD, for learning processes. We need to retrain, to use other avenues of learning, to compensate. We do not really motivate people to learn. We are motivated by materials, techniques, or by anxiety, fear or love. How do we learn? And do we learn? It has been estimated that we retain 10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we see and hear simultaneously, 70% of what we ourselves say (we think aloud), and 90% of what we verbalize as we do a thing (explain, demonstrate what we are doing). Learning experiences need to be highly organized, multi-sensory.

Materials are not all important, are not the answer or cure. What is important is the teacher's knowing which, why, when, where, and how to introduce a material and when to stop using it. For example, many materials are used too soon, before the child is ready or in need of them. And materials are used well beyond their need, just because they are there, and kids will perseverate or avoid the next or harder task.

We need to know the processes of the child's mind, his learning disability, his strengths and weaknesses, his likes and dislikes, the problems of integration and transfer of learning. Often we do the right thing, but for the wrong reason. And, pragmatically, this may be o.k. and the child may benefit from the experience and/or the materials. But we need to observe what the child is getting out of the materials or the learning experience -- this is diagnostic teaching and diagnostic learning.

Learning cannot be measured. It is inferred. The criterion of judgment should not be just the manipulation of materials, but the change in the behavior of the child. This is learning. Learning is a change in behavior. Behavior is a function of perception. We need then to develop a perception of perception . . . far broader than that to which we ordinarily address ourselves. Perception can refer to the period of development of the young child, ages three through eight, or a level of awareness of learning. It is the end-all, be-all, in its broadest aspects and the basis for learning and behaving.

Human behavior has two frames of reference -- the point of view of the outsider and the point of view of the behaver himself. This latter is often referred to as the perceptual, personal, or phenomenological frame of reference, and one which is overlooked when working with perceptually handicapped children. That is, the effect of perception is more than a period of development and learning. It is the essence of one's learning, learning and behaving, throughout life, and it should be considered as basic when working with the young child.

The LD child has difficulty with gestalt, seeing the total picture, the relationships, getting the point. A gestalt is what is perceived, and it is always a total, never an isolated event. The process of emergence of figure from ground is called differentiation. This makes possible the change in our perception of events. Perceptions are differentiated in terms of nearness of events experienced, of similarity, of intensity, common fate, direction, continuity, characteristic, novelty or contrast, common movement or direction. This is much more complex than finding hidden pictures or hearing the drum beats in a tune.

Our physical body makes perceiving possible -- our eyes, ears, taste buds, olfactory end organs are our contact with the world about us, but they in turn are dependent upon and aided by the brain and the nervous system. Thus the limits of the functioning of our nervous system limit our perceptions as do the acuity of our sense organs. But human perceptions extend far beyond the experiences of sight, hearing, smell, taste and touch to inclues ideas, values, concepts, perceptions of relationships, meanings far transcending the limitations of our sense organs. And persons with sensory impairments or missing sensory outlets, the blind, deaf, LD, for example, may live lives enriched by experiences received by the other intact outlets and enriched further by the brain and nervous system. Man escapes from the bonds of his physical limitations to understand, predict and control the forces of the world about him. Even the sensorially handicapped have this world open to them. All living things have the ability to react. It is this ability to react which makes learning possible. Materials and media are to be reacted to -- to bring the world a little closer, perhaps, or make it a little clearer, more acceptable.

The child develops an awareness of time from his ability to perceive remote events. It is sequence in time and space. And language makes it possible to experience events that are long past.

The child's growth of awareness begins with his physical self -- he is larger than, smaller than, close to, far from, next to, beside. He has needs -- physical, emotional, spiritual -- and he has feelings. This development of awareness can be affected by inadequate sense organs, general health, experience, and culture.

Perception is an internal individual phenomenon. What is perceived is not what exists but what one believes to exist. What is perceived is what we have learned to perceive as a result of our past opportunities or experiences. The meanings we have learned often are highly stable and difficult to change.

Needs satisfaction is impossible in an unpredictable world. The child with unpredictable experiences, perceptions or meanings will be frightened, unsatisfied, and frustrated. Effective interaction must be based upon stable, accurate concepts of what other people are like. The child needs consistent models, consistent elders, consistent reinforcements. The child can only see himself in terms of his experiences and the treatment he receives from those responsible for his development. The child learns what he lives. We must choose learning experiences -- materials and media -- which allow exploration and challenge without threat of failure.

The process of differentiation of goals and techniques within the perceptual field is related to need satisfaction. Frames of reference and the effect of values upon perception have important implications in all types of social problems. The most important complex of differentiation in the individual's perceptual field is his phenomenal self. How we behave depends upon how we perceive ourselves and how we perceive the situation. The self is a basic variable affecting and controlling perception. We are continually discovering what we are; and the earliest differentiation (figure from ground) is discovery of self. The young child learns he is distinct, separate, a person. And with the development of language, our process of self-differentiation is vastly accelerated. We have difficulty teaching that child with whom we have no communication -- the retarded, the psychotic, the deaf, the culturally different . . . or sometimes the LD child who has rejected a world he cannot understand.

Learning and behaving are active processes resulting from the efforts of the individual to satisfy his needs. We are always striving for satisfaction of needs and we are always learning -- something. What the individual learns (differentiates) in a given situation is determined by the need of the moment. What teachers teach and children learn can often be different because the immediate goals of the teacher and the child differ.

Intelligence, from a perceptual point of view, is a function of the factors which control the richness, extent and availability of perception in the perceptual field. What kind of environment one lives within increases one's perceptual experiences and leads one to perceive himself as adequate, worthy, self-respecting. Or, the reverse can be true.

Feelings are a shorthand description of our perceptual fields at a particular moment, our perception of ourselves, of situations in which we are involved and the ;interrelationships of these two. Adjustment and maladjustment are terms from the external frame of reference -- they are situational. The adequate personality is one who has achieved a high degree of need satisfaction. The inadequate personalities regard themselves as unable to achieve need satisfaction. They are unable to cope with life in one or more important respects. And then there is anxiety, denial, withdrawal, and frightened, desperate people.

We define our goals as to the child, not our inventory. We study and observe and read our reports and suggestions from psychologists and diagnosticians. We determine the child's strengths and weaknesses. We establish some notion of his learning style. We develop some sequence for the child that will use materials to establish learning and to integrate his new learning with his old learnings.

The teacher needs to check the level of the materials, the developmental level, sophistication level. For example, some current materials are developed to meet a sophistication level of low ability readers, but are too sophisticated for the younger and less street-wise. The purpose: Why are you using this, what are you teaching. Is this relevant? The physical value -- is it worth the money? The educational value -- is it worth the time and effort? The

guides and guidelines: Follow guides and use whole programs to get results which are promised by the commercial company. Check the sequencing; is the material a hit-and-run or a carefully sequenced developed learning experience? Does it do what it says it will? What is the content? What is in the package? Also, what teaching skills or curriculum content is there? (What is the role of the LD teacher really supposed to be: to alleviate the LD problem interfering with learning or be remedial or both?) What is the efficacy of the material? Is it worth bothering with? Be a comparative shopper. Keep up to date, though it may seem impossible and pressures will come from your schedule and from vendors. Consider if it is really worth it to make your own materials -- time-wise, use-wise? Budgets are required a year ahead; ordering must predict needs and require some forethought and consideration of universality or commonality of materials usage and learning problems.

There is a scientific basis for methods and materials in learning: learning abilities and principles of learning. The commonalities of LD are not media and materials but the problems and the methods necessary to help the child to learn. Materials can actually be distracting, or the child may not use materials as expected, the purpose then being lost or changed. Further, materials and methods need to be changed as the child masters a task. Don't continue after there is no learning value. There could be retroactive inhibition of new learning. Don't let the child perseverate or avoid the next step.

Learning can only be inferred, not measured. We are not sure of diagnostics unless they are on-going and continuous -- a way of teaching, not just a stage. There are no pure discrete learning or behavior processes.

Some considerations: Is the material developmental or remedial? Are you to teach developmentally or remedially? To work on that learning problem of the child which interferes with his learning? Or to teach that child his skills and academics, making allowances for his learning problems? You need to decide or find out. Is the problem sensory input or output? Is the problem one of processing, maturity, or readiness (which includes maturity and motivation)? Some anxiety is necessary to learning -- we need problems to solve. Material motivates a child because of its novelty or problem or challenge.

An encounter is a highly personal genuine relationship which is rewarding and enhancing for all who participate. One cannot care deeply for another without expecting, even demanding, that he do and be the best of which he is capable. The greatest thing the teacher has to offer the child is herself, her interest and concern, her willingness to share and teach her skills and knowledge. The child knows when the teacher cares enough to have this encounter, but it is not always initially obvious to the child who has failed, who is vulnerable, who has not had one to care.

A prototype of a viable medium of learning is the teacher -- she can be programmed, individualized, humanistic or contingency oriented, with limited obsolescence, and some repair parts and renewal available. There can be communication, storage and retrieval, interaction and monitoring.

Is the school becoming obsolete because of technology, family patterns, changing social structures? Would the community resources be a whole learning environment, rather than the limited schoolroom, building, playground? The base of education is changing and broadening and the shift in skills requires one to be flexible and durable. We do not teach LD, hopefully although, some courses are touted as "methods in learning disorders". This could be prophetically true. LD and MR could be school-specific. We should be teaching children who have varying potential and aptitude because of LD or similar problems.

Could we have a rationale for selection of materials which could also be used for modifying materials, developing new materials, evaluating materials and providing a diagnostic model? We should turn to the renewed emphasis upon diagnostic testing as opposed to the previous use of tests to provide just classifying information, or pigeon-holing.

There are various approaches. Ferreting out specific learning characteristics of the learner to prescribe educational activities matching those particular characteristics of the child. There is a deficit approach, identifying the deficit area and remediating. Or working not only with deficits but emphasizing and utilizing his strengths.

Subtest analysis can lead to specific educational programming, basing the educational programming on the child's response to educational tasks . . . the task analysis approach.

The modality approach considers both the stimulus presented to the child and the response made by the child (input - output). Modality learning is based upon communication theory, and was proposed by Osgood, basically, but also Wepman. This theory or model has been most catalytic to prescriptive teaching and has hosted a formidable array of tests, methods, theories, remedial techniques. The ITPA is the most commonly used evaluative measure based upon language ability and viewing it as being of two levels of organization (meaningful and non-meaningful language), three processes of assimilation (reception, association, and expression) and two channels of communication (auditory-verbal and visual-motor) -- categorizing language along three dimensions.

Channels of communication refer to the manner in which a child receives sensory information and how he responds to that information; these can be pathways of learning and children can be of certain learning types, preferring certain input-output modalities for learning. If a child's strength is in the auditory-verbal channel, for examples, one might suggest teaching reading with a phonetic or linguistic based approach. But if his basic strength is in the visual-motor channel, his visual strength is emphasized through the use of a whole word or sight word approach in learning to read. This type of clinical teaching requires the teacher to analyze the learning task itself in addition to evaluating the child who is learning the task.

To modify or develop materials which are appropriate for the child's level of functioning, the teacher needs a system or rationale to determine what instructional materials should precede, complement, or follow any other

instructional material. The teacher needs to keep in mind the child's learning stage -- developmental point of learning -- and the child's input-output systems at any one of these developmental stages. The teacher then must analyze instructional materials with regard to the manner in which stimuli are presented to the child and the responses expected from the child. How does the child process information?

What are the developmental learning stages through which the child passes? The motor learning stage incorporates the gross-motor stage, the motor-perceptual stage and the perceptual-motor stage. The young child interacts with his environment; initially this is largely of a gross-motor nature. Through repeated experiences with his environment, the child begins to gather basic perceptual information -- he touches, handles, manipulates objects within his immediate environment. Eventually the child can gain information perceptually -- recognizing and understanding -- without extensive motor experience.

The child also develops common reference points for interpretation of perceptual information, first through moving and touching, later adding information from seeing and hearing, smelling, etc. He establishes an internal awareness of his own body with respect to environmental information. When he can receive the same information from perception as he did from motor exploration, he has achieved perceptual-motor match. He begins to make sense out of his sensations, his experiences -- he can depend upon his environment and upon his perceptions -- they match.

And the child, as he builds up his internal awareness of his external world, also gains control of his own body movements in relation to his environment. Some children need many experiences before they gain this awareness of the environment and of themselves in relation to the world around them. They may seem "lost in space". The basic rudiments of perceptual learning occur in combination with motor learning. The instructional model then continues from the simple to the complex with many more refined perceptual activities, many at the child's desk when he goes to school. His world then can be contained to a smaller, more manageable area as he uses stencils, cubes, parquetry, paper and pencil, materials which provide training in eye-hand coordination, form contancy, position in space, figure-ground, spatial relationships.

At the same time, the child should be acquiring auditory perceptual skills, recognizing and discriminating sounds, listening skills, the beginning of symbolic learning which precedes reading. The language learning level will build upon motor and perceptual learnings and will occur along with the development of motor and perceptual skills as the child communicates with his world. Along with verbal language -- vocabulary, describing and naming, following directions, remembering visual and auditory sequences, classifying, listening, thinking -- he also develops visual language -- reading people, their gestures, expressions, sizing up his world visually.

A fourth level of instructional materials model would concern itself with symbolic learning, which encompasses activities generally considered academic. It is this ability to learn vicariously that will open the child's world to the thoughts, experiences, feelings and dreams of others. Without abstract and vicarious learning, the child would be bound to his concrete three-dimensional, physical environment, as is the severely retarded. Reading, writing, spelling and arithmetic can be taught within the constraints of the particular modality strengths of the child. There are many programs, materials, techniques available . . . and choosing can and should be guided by the child's input-output dimensions.

How does the child receive and express information at any one of the developmental levels - motor, perceptual, language, symbolic? It is important to analyze instructional materials with regard to the manner in which stimuli are presented and the responses expected of the child. If the child has difficulties in responding to what he hears, it may be necessary to provide visual or tactual information to assist him in making a response. Or if he can understand but not make a response -- such as motor (writing) or verbal (speaking) -- alterations may be necessary. He may point. Or multiple choice may be afforded the child who has a poor retrieval memory but can recognize the correct response.

This input-output technique will isolate the learning difficulty and allow for specific programming based on their input or output dysfunction; and the teacher can address herself also to those deficiencies in further sequential training. But the child can continue to be exposed to successful learning experiences despite a disability, either input or output. The teacher must continually be aware of the complexity of the input or the output required of instructional materials. Children need to be presented with learning tasks matched to their level of development. Bruner says that we can teach anything if it is sequenced and presented correctly (matched to the child's level of learning -- motor, perceptual, semi-abstract, symbolic). This makes a heavy demand upon the teacher to make adjustments in the educational program of the learning disabled, unevenly developed, maturationally lagging child -- the child who is further made complex by emotional overlay of failure, maladjustment, frustration, affective immaturity, social imperceptions.

This is why the child needs, besides objects to manipulate, elders to understand and guide. The burden of providing adequate instructional materials for the child's learning, then, lies with the teacher and the administrator who purchases for or with the teacher. And this will require the conjoint or mutual efforts of the educators who evaluate and diagnose and prescribe and the commercial vendors who provide the instructional materials. It is time the two groups got together.